**Patent Claims**

1. Method for applying a pharmaceutical fluid, for the first time, to an inherently sealed tubular system capable of conveying fluid, having two open ends, the system being part of a propellant-free inhaler, characterised in that a container which contains a fluid pharmaceutical formulation is pushed manually onto the tubular bottom end of the system in pressuretight manner until the tubular end projects into the fluid and an excess pressure of at least 1 mbar prevailing in the container at the start or finish of the pushing-on operation forces some of the pharmaceutical fluid through the system, thereby reducing the excess pressure, such that the system is preferably totally filled with fluid.

2. Method according to claim 1, characterised in that by the pushing-on process at least one and a half times as much fluid is forced through the system as corresponds to the volume of the system.

3. Method according to claim 1, characterised in that the excess pressure in the container is generated by cold-filling the fluid pharmaceutical formulation at a temperature of less than 10°C followed by pressuretight sealing of the container and pushing the container onto the bottom end of the hollow piston at a temperature of more than 10°C.

4. Method according to claim 1, characterised in that the excess pressure in the container is generated by filling the fluid pharmaceutical formulation at an excess pressure of at least 10 mbar with the inclusion of a residual air bubble with a volume of at least 0.1 ml to a maximum of 0.5 ml and pushing the container onto the bottom end of the hollow piston at normal pressure.

5. Method according to claim 1, characterised in that the system comprises at least one hollow piston having a tubular lower end and an upper end, a cylinder bore in the lower part of which the upper region of the hollow piston can be moved back and forth between two positions and an outlet nozzle which is provided at the upper end of the cylinder bore.

6. Method according to claim 1 or 5, characterised in that the volume in that part of the system which is above the fluid level after the immersion of the tubular end is not more than 25 microlitres and the excess pressure while the cartridge is being pushed onto the tubular end is generated by the fact that the tubular end of the system projects so far into the fluid inside the container that it displaces a volume of at least 25 microlitres, more preferably at least 34 microlitres.

7. Method according to claim 6, characterised in that the tubular end is formed by the lower part of the hollow piston according to claim 5.

8. Closure for a fluid-filled container which comprises, in the closed position, a connector (2) projecting into the container or located on the container, the top end of which points away from the container and the bottom end of which is aligned with the interior of the container and a tubular guide (12) starting from the top part is formed in the connector (2), characterised in that the connector (2) has a device which displaces some of the fluid in the container under the effect of an external force.

9. Closure according to claim 8, characterised in that the guide (12) comprises at its end an expanded portion, preferably in the form of a chamber, which can be opened toward the container along the direction of the guide (12) and in which there is a displacement member which can be pushed at least partially out of the chamber in the direction of the interior of the container.

10. Closure according to claim 9, characterised in that the displacement member has a bore, which is constructed starting from the top end of the displacement member, is aligned in a straight line with the guide (12).

11. Closure according to claim 10, characterised in that the bore passes right through and optionally has a constriction.

12. Closure according to claim 10, characterised in that the bore does not pass right through and has a constriction underneath which there is a hollow space closed off at the bottom.

13. Closure according to claim 12, characterised in that the displacement member is constructed as an integral, capillaried, open-pored porous storage medium for fluid.

14. Closure according to claim 13, characterised in that the displacement member is a dimensionally rigid body having a fluid-pervious wall, filled with sintered or non-sintered powder, or a woven or knitted or nonwoven structure or a wad of fibres.

15. Closure according to claim 13, characterised in that the storage medium for fluid in the displacement member consists of plastics, ceramics, glass, metal or a natural substance.

16. Closure according to one of claims 9 to 15, characterised in that stop means are provided on the displacement member (14) and on the guide (12), to prevent the displacement member (14) from being able to leave the guide (12) completely.

17. Closure according to one of claims 9 to 16, characterised in that the wall of the displacement member (14) and the wall of the guide (12) cooperate in fluidtight manner.

18. Closure according to claim 8, characterised in that the connector comprises at its bottom end at least two sleeves inserted telescopically one inside the other, of which at least the hollow part of the innermost sleeve is aligned directly with the guide (12).

19. Closure according to claim 18, characterised in that the external diameter of the upper part of a respective inner sleeve is greater than the internal diameter of the bottom part of the outer sleeve enclosing it.

20. Closure according to one of claims 18 or 19, characterised in that the innermost diameter of the innermost sleeve is constructed as a press fit for a cannula.

21. Closure according to one of claims 18, characterised in that at least the bottom wall of the connector is constructed as a bellows made of an elastic material.

22. Closure according to one of the preceding claims 8 to 21, characterised in that the connector (2) is a non-sealing immersion connector (2), which displaces some of the contents of the container while the closure (1) is being pushed onto the neck of the container (3).

23. Closure according to claim 22, characterised in that one or more vent opening(s) (6) is (are) provided on the outside of the closure (1) such that, during the closing of the container to the point where the crimp edge (4) which runs around the inside of the lower edge of the closure engages in the closure position, it (they) create(s) at least one connection between the closure interior (7) formed by the closure and the neck of the container, and the exterior.

24. Closure according to one of the preceding claims 8 to 21, characterised in that the connector (2) is part of a flange which is located on a container.

25. System comprising a closure according to one of claims 8 to 24 and a fluid-filled container, whose sole connection to the outer environment is sealed off by the closure.

26. Use of a system according to claim 25 as a supply system for a liquid pharmaceutical formulation in an inhaler, which comprises a cannula (18), which is connected at one end to a nozzle and at its other end the system may be pushed on in pressure- and fluid-tight manner.

27. Use of a system according to claim 26, characterised in that the cannula (18) is constructed to be complementary to the guide (12), so that the cannula (18) is able to pass through the guide (12) wholly or partially and/or can cooperate by frictional engagement with the wall of the guide (12).